



Marco Compound # V1002

75 Durometer Black, FKM Per AMS-7276 and MIL-R-83248C

Technical Datasheet

Common Names:

FKM, Fluoropolymer, Fluorel®, Viton®,

General Description:

FKM compounds are widely used in chemical, automotive, aerospace and industrial applications. These compounds offer excellent chemical and temperature resistance. There are many additional specialty compounds based on A, B, F, GLT, GFLT, LTFE and ETP polymer types. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

Features:

- High temperature resistance.
- Excellent resistance to acids, fuels, mineral oils, greases, aliphatic, aromatic and chlorinated hydrocarbons, non-flammable hydraulic fluids (HFD) and many organic solvents and chemicals.
- Excellent resistance to aging and ozone.
- Low gas permeability, low compression set.

Limitations:

- Steam, hot water, polar solvents, low molecular weight organic solvents and glycol-based brake fluids.

Cure System:

Bisphenol

Service Temperature:

-15 to 437°F

(Additional compounds may be available with expanded temperature ranges).

Specification:

AMS-7276 and MIL-R-83248C Type 1 Class 1

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM 2000 Requirements	Typical Test Results
Hardness, Shore A	75 +/- 5	77
Color	Black	Black
Tensile Strength, psi (MPa)	1,400 min. (9.65)	2,262 (15.6)
Ultimate Elongation, %	125 min.	130
Specific Gravity, ASTM D297	As determined	1.84

TEMPERATURE RETRACTION – ASTM D1329	ASTM D2000 Requirements	Typical Test Results
TR-10, Degrees F	+ 5 or colder	+3

HEAT RESISTANCE – AIR AGING ASTM D573 (70 hrs. @ 518°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-5 to +10	+3
Tensile Strength Change, %, ASTM D1414	-35 (max)	-17
Ultimate Elongation Change, %, ASTM D1414	-15 (max)	-3
Weight Loss, %, ASTM D297	10 max	3.6

COMPRESSION SET – ASTM D 395 Method B and ASTM D1414 (22 hrs. @ 392°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	15 (max)	10
Percentage of original deflection, %	40 (max)	28

ARM-200 Fluid Immersion, ASTM D471 and ASTM D1414 (70 hrs. @ 392°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, ASTM D2240	-15 to 0	-7
Tensile Strength Change, %, ASTM D1414	-35 (max)	-12
Ultimate Elongation Change, %, ASTM D1414	-20 (max)	+18
Volume Change, %, ASTM D297	+1 to + 25	17

COMPRESSION SET – ASTM D395 Method B and ASTM D1414 (70 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	10 (max)	8

FUEL B Immersion - ASTM D471 and ASTM D1414 (70 hrs. @ 75°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-15 to + 5	+3
Tensile Strength Change, %, ASTM D1414	-20 (max)	-7
Ultimate Elongation Change, %, ASTM D1414	-20 (max)	-8
Volume Change, %, ASTM D471	0 to + 5	+1.3

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Fluorel® is a registered trademark of Dyneon.